

PINNIXA COSTARICANA, A NEW SPECIES
OF CRAB FROM CENTRAL AMERICA
(BRACHYURA: PINNOTHERIDAE)

Mary K. Wicksten

Abstract.—*Pinnixa costaricana*, a new species of pinnotherid crab, has been found in Guanacaste Province, Costa Rica. The crab, related to *P. floridana* and *P. bahamondei*, has a very small palpus on the third maxilliped, teeth on the merus of the third walking leg, and a nearly smooth carapace, without marked ridges.

The intertidal fauna of western Costa Rica is poorly known. During a recent collecting trip, Richard C. Brusca brought specimens of decapod crustaceans and other invertebrates to the Allan Hancock Foundation (AHF), University of Southern California. Among the specimens were two small crabs belonging to an undescribed species.

Pinnixa costaricana, new species

Figs. 1, 2

Diagnosis.—Small commensal crab. Carapace $2.3\times$ as wide as long in adult, anterolateral margin without crest, cardiac ridge lacking. Merus of third walking leg $1.25\times$ long as wide, dactyls of walking legs 1-3 nearly straight, dactyl of fourth walking leg short and triangular. Chelae weak, with very tiny granules. Palpus of third maxilliped small, merus rounded.

Description.—Carapace suboblong, cylindrical, anterolateral margins diverging posteriorly, forming shoulders from which side walls drop away vertically, surface punctate, slight gastroducardiac trench, no cardiac ridge or anterolateral crest. Posterior margin straight. Front not advanced, truncate, lobes separated by shallow median sulcus. Margins with some setae, especially on ventral surface. Orbits small, slightly inclined downward.

Third maxilliped with merus having rounded margins, palpus small, dactyl barely reaching merus and inserted at distal end of propodus, entire appendage setose.

Chelipeds slender, setose. Margins of chelae subparallel, manus with pile, tiny granules on propodus. Fingers slender, tips pointed and curved, meeting without gape.

First two walking legs slender, meri trigonal, dactyls sharp, slender, and nearly straight. First walking leg somewhat smaller than second, nearly reaching end of propodus of second leg. Second walking leg reaching carpus of third walking leg. Third leg very wide; merus $1.25\times$ as long as wide, with 1 stout tooth and group of smaller teeth and tubercles at posterodistal angle; carpus without teeth, propodus $1.5\times$ as long as wide, with granules along flexor margin; dactyl straight and slender. Fourth walking leg short, reaching almost to end of merus of third leg, dactyl stout and triangular. All legs pilose.

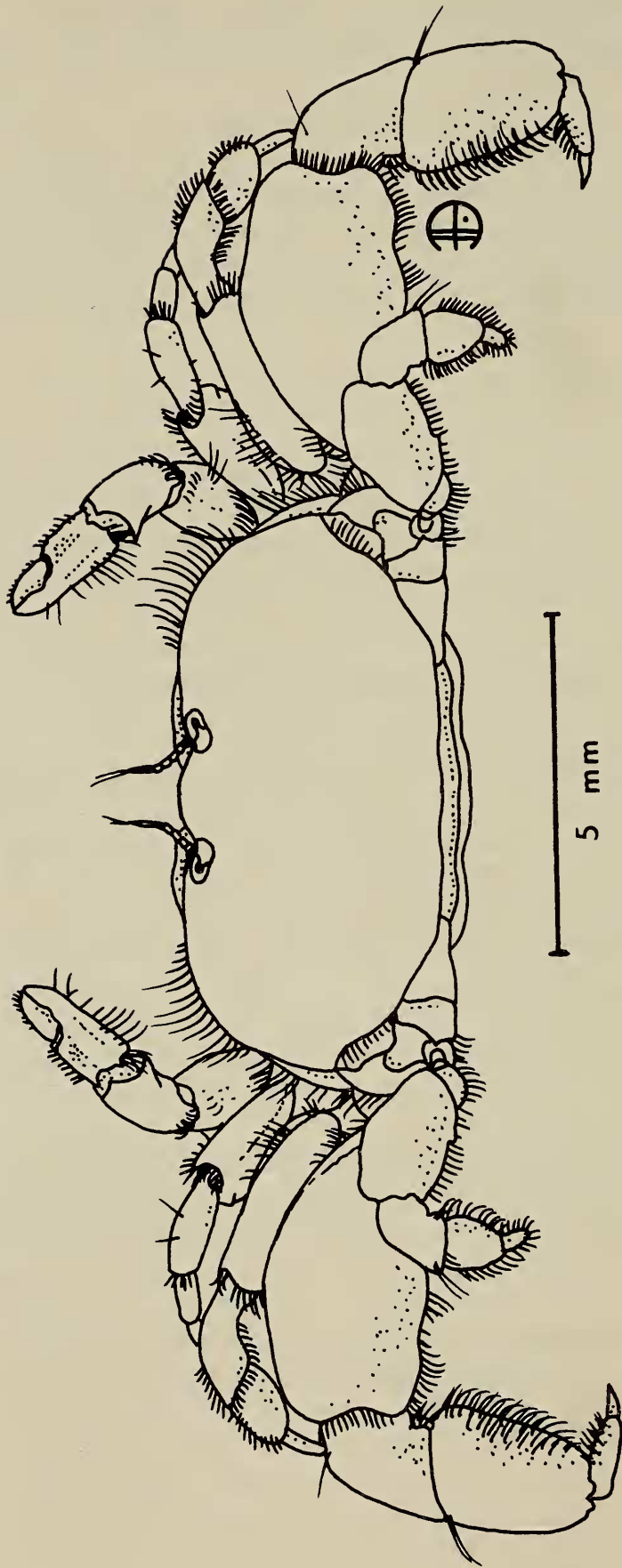


Fig. 1. *Pinnixa costaricana*, holotype. Playa de Coco, Guanacaste Province, Costa Rica.

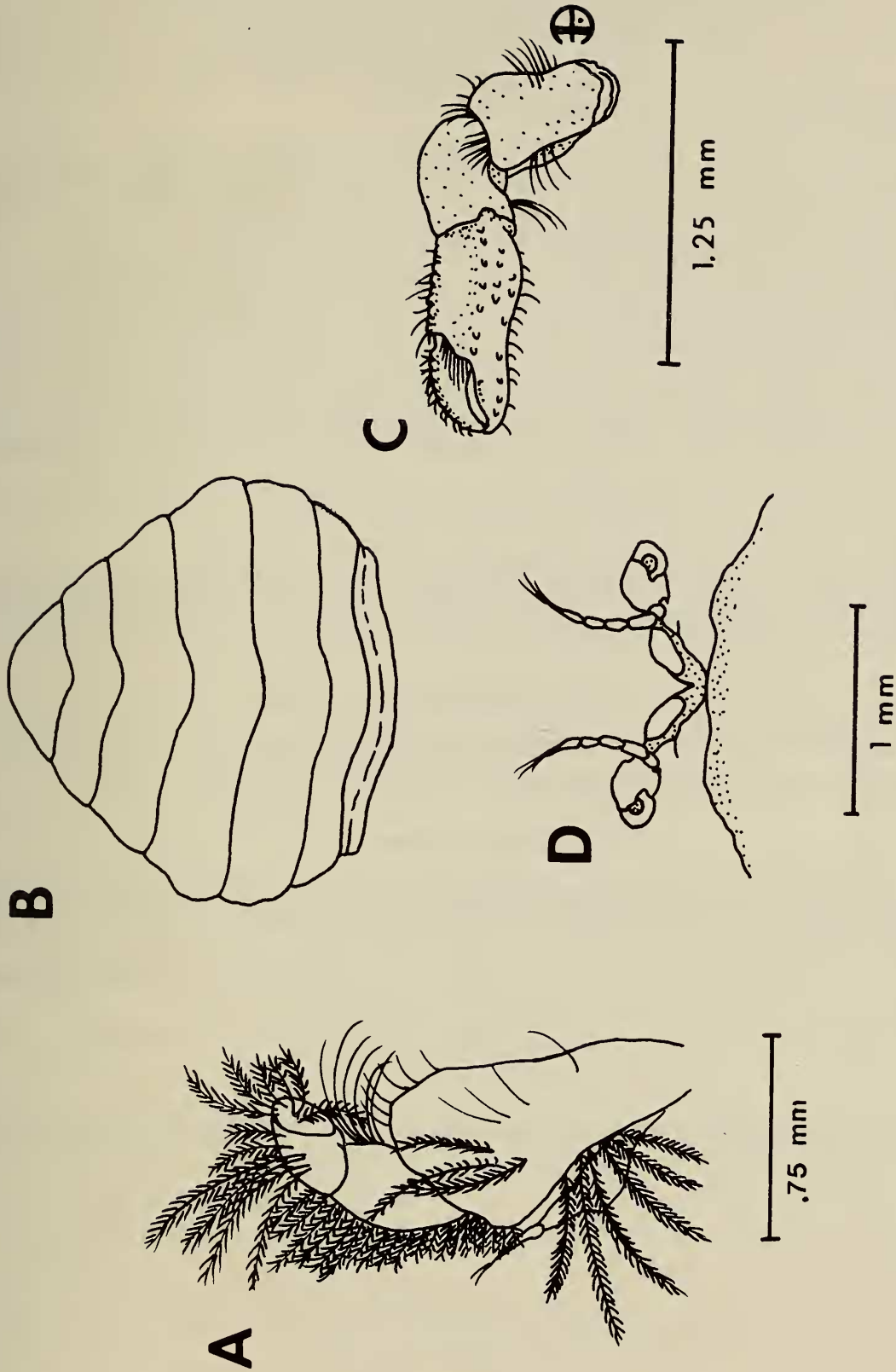


Fig. 2. *Pinnixa costaricana*, holotype: A, Third maxilliped; B, Female abdomen; C, Chela; D, Orbital region in frontal view.

Female abdomen widest at third segment, tapering slightly at fourth segment, fringed with long setae.

Holotype.—Female, carapace length 1.8 mm, width 4.2 mm. Playa de Coco, Guanacaste Province, Costa Rica (about 10°5'N, 85°45'W), low intertidal zone, sand and rocks, 27 April 1980, R. C. Brusca, AHF type number 806. Paratype, juvenile, same location and date, carapace length 1.2 mm, width 2.3 mm, U.S. National Museum of Natural History.

Discussion.—*Pinnixa costaricana* resembles *P. floridana* Rathbun, 1918, *P. pembertoni* Glassell, 1935, and *P. bahamondei* Garth, 1957 in having granules or teeth on the third walking leg. It differs from the other species in having a very tiny palpus and a rounded merus of the third maxilliped, instead of a subrectangular merus and long palpus. In *P. floridana*, from the Gulf of Mexico, the merus of the third walking leg is 1.66× as long as wide, and the carapace is 2× as long as wide. *Pinnixa pembertoni*, from the Gulf of California, has a tooth on the dactyl of the chela, ridges on the chela, and a gape between the fingers of the chela. The carapace has a sharp marginal angle at the junction of the anterior and posterior margins. *Pinnixa bahamondei*, from Chile, has a tooth on the carpus of the third walking leg, and more pronounced granules on the chela. The merus of the third walking leg is 1.5× as long as wide, and the propodus is as long as wide. The dactyl of the fourth walking leg is slender, not stout.

The host of *P. costaricana* was not recorded. The small size and slender shape of the crab, however, seem adapted for life in the tube or burrow of a polychaete.

Acknowledgments

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Department of Biology, Texas A&M University, College Station, Texas 77843-3258.